

Babaev Yuri Nikolaevich

physicist, deputy head of the KB-11 sector, developer of thermonuclear weapons.
Corresponding member of the USSR Academy of Sciences, laureate of the Stalin (1953),
Lenin (1959) and State Prize (2000).



Biography

Yuri Nikolaevich Babaev was born on May 21, 1928 in Moscow.

During the Great Patriotic War, he and his family were evacuated in the Chelyabinsk region, then in the city of Leninabad (now Khojent) of the Tajik SSR. Yuri Babaev survived the cold and hungry years as a schoolboy. Life's difficulties did not interfere with his excellent studies at school - he studied well and mastered the 8th and 9th grade curriculum in one year.

In 1946, Yu. N. Babaev graduated from high school in Moscow and entered the physics department of Moscow State University. M.V. Lomonosov, who graduated in 1950 with honors.

At the beginning of 1951, as one of the best graduates, Yu. N. Babaev was sent to work on nuclear weapons of the USSR at KB-11 in the city of Arzamas-16 (RFNC-VNIIEF, Sarov, Nizhny Novgorod region). He was assigned as a senior laboratory assistant to the laboratory of A.D. Sakharov and took part in the creation of the first Soviet hydrogen bomb. Being a talented physicist, Yu. N. Babaev very quickly rose through the ranks from senior laboratory assistant to deputy head of the department, becoming a leading specialist in the field of creating atomic and thermonuclear charges.

For his participation in the development of the RDS-3 hydrogen bomb in 1953, Yuri Nikolaevich became a laureate of the Stalin Prize.

In 1955, together with Yu. A. Trutnev, Yu. N. Babaev formed a new direction in the creation of thermonuclear charges with radically improved characteristics. Experimental development of the first charge of a new type was completed in 1958. This work was preceded by extensive theoretical research on the physical substantiation and mathematical calculation of physical processes, which were still largely unclear. For these developments in 1959, Yu. N. Babaev became a Lenin Prize laureate.

In 1961-1962 under the leadership of Yu. N. Babaev, new, more advanced charges were developed, most of which are in service with the Russian Army at the beginning of the 21st century. Yu. N. Babaev became one of the main creators of the world's largest exploded bomb ("Tsar Bomb") with a capacity of 50 megatons, tested at the test site on Novaya Zemlya on October 30, 1961. Moreover, during its development, data was obtained that made it possible to create bombs of 100 megatons and above without fundamental changes in design.

For outstanding services in the development of a number of thermonuclear charges with high specific characteristics, by the Decree of the Presidium of the Supreme Soviet of the USSR dated March 7, 1962, Yuri Nikolaevich Babaev was awarded the title of Hero of Socialist Labor with the Order of Lenin and the Hammer and Sickle gold medal. In the same year he was awarded the academic degree of Doctor of Technical Sciences.

In 1964, he was appointed head of the department, deputy head of the VNIIEF sector. During these years, under the leadership of Yu. N. Babaev, new nuclear and thermonuclear charges for various purposes were developed to equip most branches of the Armed Forces of the USSR. He repeatedly participated in testing thermonuclear charges at the testing sites of the Ministry of Defense as a specialist and as a leader. His contribution to the development of nuclear charges is invaluable.

In addition to warheads, he was involved in the development of thermonuclear charges for national economic purposes - he created charges with minimal fragmentation radioactivity to create reservoirs, extinguish gas flares, intensify gas and oil fields, etc. Some of them were successfully used for their intended purpose.

On November 26, 1968, Yu. N. Babaev was elected a corresponding member of the USSR Academy of Sciences in the department of nuclear physics, specializing in experimental nuclear physics.

Along with the creation of practical weapons, Yu. N. Babaev conducted extensive theoretical work on the use of nuclear explosions to produce fissile materials.

Subsequently, Yu. N. Babaev's efforts focused on radically improving thermonuclear charges, for which he developed the theory of a "double approach." He made a tremendous contribution to the development of theoretical two-dimensional programs, which contributed to the creation of a mathematical apparatus. His work was a powerful stimulus for the development of calculations of complex mathematical problems and physical processes. Such thermonuclear charges were simpler in design and manufacturing technology. Tests of the new charges showed some instability and the need for improvement, but Yuri Nikolaevich did not have time to do this.

He has worked extensively in related fields. He worked on laser topics: pumping lasers from a nuclear explosion. He was also interested in biology, the effect of radiation on humans and the environment. He also had proposals for launching military vehicles into space.

Yu. N. Babaev also paid tribute to the education of the younger generation of scientists - under his scientific leadership a whole galaxy of candidates and doctors of science was raised. As the chairman of the section of the academic council of KB-11, Yu. N. Babaev was directly responsible for the training and advanced training of scientific personnel in his thematic area.

For his scientific research, Yu. N. Babaev was awarded two Orders of Lenin (1956, 1962), the Order of the Red Banner of Labor (1975), and the medal "For Labor Valor."

Yu. N. Babaev died on October 6, 1986 in Moscow.

In 2000, Yuri Nikolaevich was posthumously awarded the State Prize of the Russian Federation.

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Photo gallery 6



Yu. N. Babaev



Yu. N. Babaev



Yu. N. Babaev



Yu. N. Babaev and Yu. A. Trutnev



Nuclear tennis players. R. I. Ilkaev, V. S. Pinaev, Yu. N. Babaev, D. A. Fishman



Grave of Yu. N. Babaev



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